

REMARKS/ARGUMENTS

Independent claims 1, 11 and 12 have been amended and claims 4-6, 14, 15, 17, 18, 20 and 21 have been cancelled.

The new feature of the amended claim 1 is disclosed on page 2, paragraph [0033] to page 3, paragraph [0035] of the patent application publication (US 2006/0162115 A1) and can be seen in Figs. 10 to 43.

The new features of the amended claim 11 are disclosed on page 3, paragraphs [0040] to [0044] of the patent application publication (US 2006/0162115 A1) and can be seen in Figs. 33 to 40. Moreover, amended claim 11 includes the feature of the original claim 6.

The new features of the amended claim 12 are disclosed on page 3, paragraphs [0040] to [0044] of the patent application publication (US 2006/0162115 A1) and can be seen in Figs. 33 to 43.

Reconsideration of the claim rejections is respectfully requested.

Stevens (US 4,864,678) discloses a wiper device for a motor vehicle. The wiper device comprises a wiper arm (1) which includes a wiper rod (11) for fixing a wiper blade (4), a fixing element (6) that is connected free of articulation to the wiper rod (11) and a partial zone (13, 14) having spring elasticity. The wiper arm (1) can shift essentially elastically from an operating configuration to one first stable configuration, wherein the wiper blade (4) can be mounted and dismounted when the wiper arm (1) is in a mounted state (see Stevens, col. 2, line 12 to col. 3, line 18 and figure 1).

Stevens lacks the feature that the wiper arm (1) includes a bistable component which comprises at least three elongated sections and that the bistable component is manufactured by tensioning at least one of the three elongated sections. Therefore, amended claim 1 is allowable over Stevens.

Moreover, Stevens lacks the features that a partial zone having spring elasticity of the wiper rod (11) comprises three elongated sections and that at least one of the three elongated sections has a curvature in a first direction in the first stable configuration and has a curvature in a second direction in the second stable configuration. Therefore, amended claim 11 is allowable over Stevens.

Furthermore, Stevens lacks the feature that the fixing element (6) comprises at least one limit stop that is integrated into the fixing element (6) as one piece. Therefore, amended claim 12 is allowable over Stevens.

Weiler et al. (DE 100 52 616) discloses a wiper device for a motor vehicle. The wiper device comprises a wiper arm (10, 20, 30) that includes a wiper rod for fixing a wiper blade, a fixing element (27) that is connected free of articulation to the wiper rod and a partial zone (11, 21, 31) having spring elasticity. The wiper arm (10, 20, 30) can shift essentially elastically from an operating configuration to one first stable configuration, wherein the wiper blade can be mounted and dismounted when the wiper arm (10, 20, 30) is in a mounted state (see Weiler et al., col. 4, line 5 to col. 6, line 8 and figures 2 to 14).

Weiler et al. lacks the feature that the wiper arm (10, 20, 30) includes a bistable component which comprises at least three elongated sections and that the bistable component is manufactured by tensioning at least one of the three elongated sections. Therefore, amended claim 1 is allowable over Weiler et al.

Moreover, Weiler et al. lacks the features that a spring elastic partial zone of the wiper rod comprises three elongated sections and that at least one of the three elongated sections has a curvature in a first direction in the first stable configuration and has a curvature in a second direction in the second stable configuration. Therefore, amended claim 11 is allowable over Weiler et al.

Furthermore, Weiler et al. lacks the feature that the fixing element (27) comprises at least one limit stop that is integrated into the fixing element (27) as one piece. Therefore, amended claim 12 is allowable over Weiler et al.

The aim of the present patent application as defined in claim 1 is to integrate a bistable component into a elongated shape of the wiper arm to achieve a compact and stable design of the wiper arm and to allow the wiper arm to shift essentially elastically from an operating configuration to one first stable configuration, wherein the wiper blade can be mounted and dismounted when the wiper arm is in a mounted state.

This aim is achieved by a bistable component of the wiper arm, wherein the bistable component comprises at least three elongated sections and is manufactured by tensioning at least one of the three elongated sections.

The object of the present patent application has the advantage that the bistable component can be easily manufactured by tensioning at least one of the three elongated sections of the bistable component. The other two of the three elongated sections retain their original shape. Thereby, an advantageous stability of the bistable component and of the wiper arm can be achieved.

The wiper device of Weiler et al. has the disadvantage that the partial zone (11, 21, 31) having spring elasticity, requires a cost-intensive assembly and production. The partial zone (11, 21, 31) having spring elasticity is formed of two journals (22, 24) wherein each has a bore (23, 25). The two journals (22, 24) are connected with each other via an element (26) that is guided by the bores (23, 25). The element (26) pretensions the partial zone (11, 21, 31) having spring elasticity in a mounted state (see Weiler et al., col. 4, lines 29 to 48 and figures 4 to 8). A person skilled in the art would not have been able to find any hints in Weiler et al. which would have led him to the object of the present patent application.

The person skilled in the art would not have considered a combination of Weiler et al. with Stevens. Both documents teach a partial zone having spring elasticity that is formed of two journals. Therefore, the person skilled in the art would not have been able to find any suggestion in Weiler et al. or in a combination of Weiler et al. with Stevens which would have led him to the object of the present invention.

Therefore, claims 1-3, 7-13, 16 and 19 are allowable.

Respectfully submitted,

/david r. price/

David R. Price
Reg. No. 31,557

Docket No.: 022862-1079
Michael Best & Friedrich LLP
100 East Wisconsin Avenue
Suite 3300
Milwaukee, Wisconsin 53202-4108
414.271.6560